

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of transporting a message from a sending application to a receiving application, across a messaging landscape in a collaborative network, the method comprising:

defining an application message having a structured application message header, the structured message header being defined in accordance with a message class of the application message determinative of content and configuration of the message header and in accordance with a messaging protocol of a business application to manage and control a of a collaborative business enterprise, the structured message header comprising one or more components defined by the protocol and based on the message class with each of the one or more components relating to a corresponding set of attributes of the message, at least one of the one or more components of the structured header including information related to:

a processing mode for the message, the processing mode having one of a multiple of values indicative of whether a reply responsive to the application message is to be transmitted to the sending application upon processing of the application message by the receiving application, and

a modifiable hop-list to record the identity of the intermediate components through which the application message passes en route to the receiving application, and security for components of the message;

sending the message according to the protocol, from the sending application; and

receiving, at the receiving application, the message;

wherein the message class having one of multiple possible values including: a first value representative of an application-message class associated with application messages that cause specified operations to be performed at the receiving application, a second value representative of an application-response class associated with messages responsive to the application messages of the application-message class, a third value representative of an application-error class associated with error messages indicative of errors occurring at the receiving application processing the application messages and a fourth value representative of a system-acknowledge class associated with acknowledgement messages indicative that one or more application messages have been received by the receiving application.

2. (Original) A method in accordance with claim 1, wherein the method further comprises:

defining the message to include a message body, wherein the message body is defined in accordance with the protocol, the message body comprises at least one component from a second set of components defined by the protocol, and the protocol defines the second set of components to comprise:

a fault message component representing an error occurring at a messaging peer that generated the error.

3. (Original) A method in accordance with claim 2, wherein the fault message is defined to represent at least one error from a set of errors and the protocol defines the set of errors to comprise:  
errors processing a message;

errors parsing a message; and

errors rendering a message.

4. (Original) A method in accordance with claim 1, wherein the security for components of the message is defined to comprise:

information related to a signature of the message; and

information related to a signature of a payload of the message, if the message includes the payload.

5. (Currently amended) A method of transporting a message from a sending application to a receiving application, across a messaging landscape in a collaborative network, the method comprising:

defining an application message having a structured application message header, the structured message header being defined in accordance with a message class of the application message determinative of content and configuration of the message header and in accordance with a messaging protocol of a business application to manage and control a of a collaborative business enterprise, the structured application message header comprising one or more components defined by the protocol and based on the message class with each of the one or more components relating to a corresponding set of attributes of the message, at least one of the one or more components including version information, the version information indicating the protocol used to define the message;

sending the message according to the protocol; and

receiving, at a messaging component in the messaging landscape, the message, the messaging component being operative to process the message based on the version information included in the message;

wherein the message class having one of multiple possible values including: a first value representative of an application-message class associated with application messages that cause specified operations to be performed at the receiving application, a second value representative of an application-response class associated with messages responsive to the application messages of the application-message class, a third value representative of an application-error class associated with error messages indicative of errors occurring at the receiving application processing the application messages and a fourth value representative of a system-acknowledge class associated with acknowledgement messages indicative that one or more application messages have been received by the receiving application.

6. (Original) A method in accordance with claim 5, wherein the version information includes a major version and a minor version.

7. (Original) A method in accordance with claim 6, wherein the messaging component is operative to process the message if the major version is less than or equal to a major version for which the messaging component is configured.

8. (Original) A method in accordance with claim 6, wherein the messaging component is operative to process the message regardless of the minor version of the message and the messaging

component is operative to optimally process the message if the minor version of the message is less than or equal to a minor version for which the messaging component is configured.

9. (Currently amended) A method of transporting a message from a sending application to a receiving application, across a messaging landscape in a collaborative network, the method comprising:

defining an application message having a structured application message header, the structured application message header including one or more components defined in accordance with a messaging protocol of a business application ~~to manage and control a~~ of a collaborative business enterprise and based on a message class determinative of content and configuration of the message header, with each of the one or more components relating to a corresponding set of attributes of the message, at least one of the one or more components including addressing information defining:

addressing information to include party information for the sending application and the receiving application, and

the party information to include identification of a party that is a business party or an agency that is defined by a scheme;

sending the message, from the sending application, according to the protocol; and

receiving, at the receiving application, the message;

wherein the message class having one of multiple possible values including: a first value representative of an application-message class associated with application messages that cause specified operations to be performed at the receiving application, a second value representative of an application-response class associated with messages responsive to the application

messages of the application-message class, a third value representative of an application-error class associated with error messages indicative of errors occurring at the receiving application processing the application messages and a fourth value representative of a system-acknowledge class associated with acknowledgement messages indicative that one or more application messages have been received by the receiving application.

10. (Currently amended) A method of transporting a message from a sending application to a receiving application, across a messaging landscape in a collaborative network, the method comprising:

defining an application message according to a class of messages, the class of messages is one of a plurality of classes of messages that are defined by a messaging protocol of a business application ~~to manage and control a~~ of a collaborative business enterprise, the application message having a structured application message header, the structured message header being defined in accordance with the application messaging protocol and based on the class of messages, the structured application message header comprising one or more components defined by the protocol with each of the one or more components relating to a corresponding set of attributes of the message;

sending the message, from the sending application, according to the protocol; and receiving, at the receiving application, the message;

wherein the class of messages includes one of: an application-message class associated with application messages that cause specified operations to be performed at the receiving application, an application-response class associated with messages responsive to the application messages of the application-message class, an application-error class associated with

error messages indicative of errors occurring at the receiving application processing the application messages and a system-acknowledge class associated with acknowledgement messages indicative that one or more application messages have been received by the receiving application..

11. (Currently amended) A method of transporting a message from a sending application to a receiving application, across a messaging landscape in a collaborative network, the method comprising:

receiving an application message, from the sending application, at a first component of the collaborative network, the application message having a structured application message header, the structured message header being defined in accordance with a protocol of a business application ~~to manage and control a~~ of a collaborative business enterprise and in accordance with a message class determinative of content and configuration of the message header, the structured application message header comprising one or more components defined by the protocol ~~and based on the message class~~ with each of the one or more components relating to an associated set of attributes of the message;

in response to the first component successfully receiving the message, the first component sending a transport level acknowledgement to the sending application;

the first component modifying the message to include the first component on a hop-list in the message;

the first component causing the message to be sent to the receiving application;

in response to receiving an acknowledgement message, from a second component, indicating that the message has been received by the receiving application, the first component sending a transport level acknowledgement to the second component;

wherein the message class having one of multiple possible values including: a first value representative of an application-message class associated with application messages that cause specified operations to be performed at the receiving application, a second value representative of an application-response class associated with messages responsive to the application messages of the application-message class, a third value representative of an application-error class associated with error messages indicative of errors occurring at the receiving application processing the application messages and a fourth value representative of system-acknowledge class associated with acknowledgement messages indicative that one or more application messages have been received by the receiving application.

12. (Original) A method in accordance with the method of claim 11, wherein causing the message to be sent to the receiving application comprises:

the first component sending the message to one of one or more components in the collaborative network, wherein each component is operative to:

send a transport level acknowledgement, in response to successfully receiving the message;

cause the message to be sent to the receiving application;

include the component on the hop-list in the message, by modifying the message;

if the component sends the message to the receiving application,

generate the acknowledgement message, and

send the acknowledgement message; and  
send a transport level acknowledgement in response to successfully receiving the acknowledgement message.

13. (Previously presented) The method of claim 1 wherein the messaging protocol of the business application to manage and control the business enterprise is different from standard network communications protocols.

14. (Previously presented) The method of claim 1 wherein the structured application message header comprises:

a structured application message header specified using XML syntax.

15. (Previously presented) The method of claim 1 wherein the structured application message header is specified in a designated header section of a Simple Object Access Protocol (SOAP) message.

16. (New) The method of claim 1 wherein the application-response class associated with messages responsive to the application messages of the application-message class is associated with messages comprising return values responsive to respective computations performed by the receiving application in response to requests in the application messages received from the sending application.